

# SELF STUDY WORKSHEET

Name \_\_\_\_\_

## 2.1 Properties of Real Numbers

(Textbook Pages: Pages 87)

- A) Complete the equation to illustrate the following Properties of Real Numbers.  
B) **Describe** the property with key words or phrases. **DO NOT** copy the definitions (p. 87) from the book.

1A) Closure + }  $4 + 6 = 10$  10 is a real number  
Closure x }  $4 \cdot 6 = 24$  24 is a real number

B) *When real numbers are added or multiplied the answer is still a real number.*

2A) Commutative + }  $2 + 4 + 6 =$  \_\_\_\_\_  
Commutative x }  $(2)(4)(6) =$  \_\_\_\_\_

B)

3A) Associative + }  $2 + (4 + 6) =$  \_\_\_\_\_  
Associative x }  $2 \cdot (4 \cdot 6) =$  \_\_\_\_\_

B)

4A) Identity +  $4 + \underline{\hspace{1cm}} = 4$

B)

5A) Identity x  $4 \cdot \underline{\hspace{1cm}} = 4$

B)

6A) Inverse +  $7 + \underline{\hspace{1cm}} = 0$

B)

7A) Inverse x  $7 \cdot \underline{\hspace{1cm}} = 1$

B)

8A) Distributive  $2 \cdot (4 + 6) =$  \_\_\_\_\_  
(x over +)

B)

C) State the name of the property illustrated by each equation, be sure to include the operation. Behind each give a reason that supports your answer (i.e. order of multiplication changed).

\_\_\_\_\_ 1)  $9 + (\sqrt{5} + 0) = 9 + (0 + \sqrt{5})$  \_\_\_\_\_

\_\_\_\_\_ 2)  $2 + 7\left(\frac{2}{3} \cdot \frac{3}{2}\right) = 2 + \left(7 \cdot \frac{2}{3}\right) \cdot \frac{3}{2}$  \_\_\_\_\_

\_\_\_\_\_ 3)  $2 + 7 \cdot 1 = 2 + 7$  \_\_\_\_\_

\_\_\_\_\_ 4)  $6(-4 + 4) = 6(0)$  \_\_\_\_\_

\_\_\_\_\_ 5)  $6(-4 + 4) = -24 + 24$  \_\_\_\_\_

\_\_\_\_\_ 6)  $9 + (\sqrt{5} + 0) = 9 + \sqrt{5}$  \_\_\_\_\_

\_\_\_\_\_ 7)  $2 + 7\left(\frac{2}{3} \cdot \frac{3}{2}\right) = 2 + 7 \cdot 1$  \_\_\_\_\_

D) Exercises: page 91 #38 – 55 all & Wksht